EXHIBIT Y:

Claim Chart for the '497 Patent

"Cell-All": Synkera MikroKera Ultra	**Patent #: 7,385,497; Independent Claim 1**	**Patents: 7,385,497; 8,106,752; & RE 43,990; Dependent Claims**
Synkera presented the MikroKera Ultra Module at the Department of Homeland Security S&T "Cell-All" demonstration in Los Angeles on September 28, 2011. Synkera offers a general purpose digital module for evaluation and use of MikroKera Ultra chemical sensors. Synkera Technologies has been funded by DHS to develop sensors that are suitable for integration into cell phones and other ubiquitous electronic devices carried by first responders and the public at large. The DHS S&T "Cell-All" project goal is to develop sensors that can detect life-threatening gases to be incorporated into cell phones. One feature of the Synkera MikroKera Ultra is: available with or without case.	A multi sensor detection and lock disabling system for monitoring products and for detecting chemical, biological, and radiological agents and compounds so that terrorist activity can be prevented, comprising:	2. The multi sensor detection and lock disabling system [of claim 1] wherein each detector is capable of being utilized as a stand-alone scanner for detecting the chemical, biological and radiological agents and compounds. (7,385,497)
Synkera MikroKera Ultra module (detector case) includes a front side, a rear side, a Central Processing Unit (cpu), and a power source that is battery, USB or AC adapter.	a detector case including a front side, a rear side, a power source and a Central Processing Unit (cpu);	4. The multi sensor detection and lock disabling system [of claim 1] wherein the power source for the detector case can be a battery source. (7,385,497)

Light-emitting diode (LED) indicators for sensor status and state of battery charge	a plurality of indicator lights located on the front side with each indicator light corresponding to and indicating the detection of one specific chemical, biological and radiological agent and compound;	119. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have a plurality of indicator lights with each indicator light corresponding to one chemical, biological, radiological, nuclear explosive and contraband agent or compound which are capable of being disposed within the cell phone, the smart phone, or the cell phone detector case and lighting up upon detection of that specific agent or compound for providing visual confirmation of the detection. (RE 43,990)
The Samsung Galaxy s6, GPS and internet capabilities as leverage for the Synkera MikroKera Ultra module (detector case) GPS connection and internet connection. Synkera MikroKera Ultra module (detector case) includes a power connection that is USB or AC adapter.	an Internet connection, a GPS connection, and a power connection located on the rear side and which are interconnected with the cpu;	2. The multi sensor detection and lock disabling system [of claim 1] wherein each detector is capable of being utilized as a stand-alone scanner for detecting the chemical, biological and radiological agents and compounds. (7,385,497)

Synkera is now engineering new packaging solutions that take advantage of the extremely small active area of the MikroKera Ultra sensor. We have already demonstrated a 2-sensor array on a SMT-style package (an 8-pin SOIC), and have designs for a 3-sensor array in an even smaller 3x3x1mm package. Co-packaging this design with integrated circuitry (required to capture the sensor signal) will allow for this sensor to be embedded in modern smartphones. One feature of the Synkera MikroKera Ultra is: available with or without case.	a plurality of interchangeable detectors for detecting the chemical, biological and radiological agents and compounds and capable of being disposed within the detector case;	2. The multi sensor detection and lock disabling system [of claim 1] wherein each detector is capable of being utilized as a stand-alone scanner for detecting the chemical, biological and radiological agents and compounds. (7,385,497)
The Samsung Galaxy s6, sound alarm indicator capabilities as leverage for the Synkera MikroKera Ultra module (detector case) sound alarm indicator. Synkera MikroKera Ultra module (detector case) includes Light-emitting diode (LED) indicators for sensor status.	each detector including a sound alarm indicator, a readings panel, a light alarm indicator and a sensor;	29. The communication device [of claim 11] wherein the communication device has a display or LCD screen for visualization of the status of the sensors and other data reporting information. (RE 43,990)

The Samsung Galaxy s6, automatic lock disabler capabilities as leverage for the Synkera MikroKera Ultra module (detector case) automatic lock disabler. After several unsuccessful log-in attempts using a passcode or fingerprint, a Samsung device automatically locks itself up as a security feature. If the user is unable to log in to the phone after doing all the available security layers, there's no other option left for the user to do but to have the phone unlocked.	an automatic/mechanical lock disabler interconnected to the cpu and which is mounted to a lock on a product for receiving transmission from the cpu to lock or disable the lock on the product to prevent access to the product by unauthorized, untrained and unequipped individuals; and	34. The automatic/mechanical lock disabler system [of claim 33] wherein the automatic/mechanical lock disabler is designed to be used with or without biometrics for authentication and identification, thereby allowing access to the product by authorized, trained and equipped individuals and preventing access to the product by unauthorized, untrained, and equipped individuals. (8,106,752)
The Samsung Galaxy s6, sound alarm indicator capabilities as leverage for the Synkera MikroKera Ultra module (detector case) sound alarm indicator. Synkera MikroKera Ultra module (detector case) includes Light-emitting diode (LED) indicators for sensor status. The Samsung Galaxy s6, automatic lock disabler capabilities as leverage for the Synkera MikroKera Ultra module (detector case) automatic lock disabler. After several unsuccessful log-in attempts, a Samsung device automatically locks itself up as a security feature.	whereupon detection of specific chemical, biological, or radiological agents or compounds by the detectors causes the lighting of the corresponding indicator light for visual confirmation of the detection and initiates signal transmission from the cpu to the automatic/mechanical lock disabler to lock or disable the lock of the product thereby preventing further contamination about the product and denying access to the product by unauthorized, untrained and unequipped individuals.	37. The automatic/mechanical lock disabler system [of claim 36] wherein the automatic/mechanical lock disabler has a plurality of indicator lights with each indicator light corresponding to one chemical, biological, radiological, nuclear, explosive, and contraband agent or compound to include indicator lights corresponding to detecting humans, motion, temperature, shock and tampering which is capable of being disposed within the detector case and lighting up upon detection of that specific agent or compound for providing visual confirmation of the detection. (8,106,752)

2"x2" Detection Device (DD) Samsung Galaxy s6 Smartphone	**Patent #: 7,385,497; Independent Claim 1**	**Patents: 7,385,497; 8,106,752; & RE 43,990; Dependent Claims**
In response to the Domestic Nuclear Detection Office's (DNDO) BAA 09-102 Passport Systems, Inc. of Billerica, MA has developed a system of networked portable spectroscopic radiation detectors to improve the detection, localization, and identification of radiological threats. The Intelligent Radiation Sensor Systems (IRSS) 2"x2" Detection Device (DD) comprises: a Standard Interface; an Individual Radiation Detection Device (IRDD); and, an Android smartphone (including GPS). The Detector Augmentation Device (DAD) was implemented by leveraging existing Android smartphone technology, and it provides all the functionality to interface with the IRDD and the operational user through an appropriate, configurable GUI. The DAD also provides a platform for all the communications and computation. The DAD is responsible for establishing and maintaining a robust ad hoc network. This is accomplished using the native WiFi (IEEE 802.11b) capability on the smartphone and open source mesh network applications.	A multi sensor detection and lock disabling system for monitoring products and for detecting chemical, biological, and radiological agents and compounds so that terrorist activity can be prevented, comprising:	2. The multi sensor detection and lock disabling system [of claim 1] wherein each detector is capable of being utilized as a stand-alone scanner for detecting the chemical, biological and radiological agents and compounds. (7,385,497)

The IRDD consists of COTS and OEM components – including signal processing electronics, HV supply, battery, photo-multiplier tube, and scintillator crystal – that were integrated into a modular, portable system. The significant computations required by the advanced algorithms, were all carried out on the smartphone processor.	a detector case including a front side, a rear side, a power source and a Central Processing Unit (cpu);	4. The multi sensor detection and lock disabling system [of claim 1] wherein the power source for the detector case can be a battery source. (7,385,497)
Figure 8: Detection confidence for networked and non-networked detectors for a very weak moving source. The red line is the average detection metric with the source present. The blue lines are source absent trials. The dashed red lines indicate ± 1 standard deviation. Figure 9: Live tracking experiment of a Co source. Green circles are detectors. Blue dots are source position hypotheses. The red circle is the estimated source position and the white ellipse represents the positional uncertainty.	a plurality of indicator lights located on the front side with each indicator light corresponding to and indicating the detection of one specific chemical, biological and radiological agent and compound;	119. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have a plurality of indicator lights with each indicator light corresponding to one chemical, biological, radiological, nuclear explosive and contraband agent or compound which are capable of being disposed within the cell phone, the smart phone, or the cell phone detector case and lighting up upon detection of that specific agent or compound for providing visual confirmation of the detection. (RE 43,990)
The Samsung Galaxy s6, GPS and internet capabilities as leverage for the Passport Systems 2"x2" Detection Device (detector case) GPS connection and internet connection. The hardware integration concept is leveraging "smartphones" for computation and communications; utilizing integrated differential GPS when possible.	an Internet connection, a GPS connection, and a power connection located on the rear side and which are interconnected with the cpu;	2. The multi sensor detection and lock disabling system [of claim 1] wherein each detector is capable of being utilized as a stand-alone scanner for detecting the chemical, biological and radiological agents and compounds. (7,385,497)

The detection device (DD) is a key system element of IRSS and, is comprised of two parts: 1) the detector augmentation device (DAD) and 2) the individual radiation detection device (IRDD). The two devices are loosely coupled to maintain flexibility and upgradability. This modular design philosophy allows for plug-and-play of various sensors with unique characteristics (e.g. sensitivity and spectroscopic resolution) depending on operator need and component availability.	a plurality of interchangeable detectors for detecting the chemical, biological and radiological agents and compounds and capable of being disposed within the detector case;	2. The multi sensor detection and lock disabling system [of claim 1] wherein each detector is capable of being utilized as a stand-alone scanner for detecting the chemical, biological and radiological agents and compounds. (7,385,497)
The Samsung Galaxy s6, sound alarm indicator capabilities as leverage for the 2"x2" Detection Device (detector case) sound alarm indicator. The 2"x2" Detection Device(detector case) includes Light-emitting diode (LED) indicators for sensor status.	each detector including a sound alarm indicator, a readings panel, a light alarm indicator and a sensor;	29. The communication device [of claim 11] wherein the communication device has a display or LCD screen for visualization of the status of the sensors and other data reporting information. (RE 43,990)
The Samsung Galaxy s6, automatic lock disabler capabilities as leverage for the the 2"x2" Detection Device (detector case) automatic lock disabler. After several unsuccessful log-in attempts using a passcode or fingerprint, a Samsung device automatically locks itself up as a security feature. If the user is unable to log in to the phone after doing all the available security layers, there's no other option left for the user to do but to have the phone unlocked.	an automatic/mechanical lock disabler interconnected to the cpu and which is mounted to a lock on a product for receiving transmission from the cpu to lock or disable the lock on the product to prevent access to the product by unauthorized, untrained and unequipped individuals; and	34. The automatic/mechanical lock disabler system [of claim 33] wherein the automatic/mechanical lock disabler is designed to be used with or without biometrics for authentication and identification, thereby allowing access to the product by authorized, trained and equipped individuals and preventing access to the product by unauthorized, untrained, and equipped individuals. (8,106,752)

The Samsung Galaxy s6, sound alarm indicator capabilities as leverage for the the 2"x2" Detection Device (detector case) sound alarm indicator. The 2"x2" Detection Device (detector case) includes Light-emitting diode (LED) indicators for sensor status. The Samsung Galaxy s6, automatic lock disabler capabilities as leverage for the the 2"x2" Detection Device (detector case) automatic lock disabler. After several unsuccessful log-in attempts, a Samsung device automatically locks itself up as a security feature.	whereupon detection of specific chemical, biological, or radiological agents or compounds by the detectors causes the lighting of the corresponding indicator light for visual confirmation of the detection and initiates signal transmission from the cpu to the automatic/mechanical lock disabler to lock or disable the lock of the product thereby preventing further contamination about the product and denying access to the product by unauthorized, untrained and unequipped individuals.	37. The automatic/mechanical lock disabler system [of claim 36] wherein the automatic/mechanical lock disabler has a plurality of indicator lights with each indicator light corresponding to one chemical, biological, radiological, nuclear, explosive, and contraband agent or compound to include indicator lights corresponding to detecting humans, motion, temperature, shock and tampering which is capable of being disposed within the detector case and lighting up upon detection of that specific agent or compound for providing visual confirmation of the detection. (8,106,752)

NetS² SmartShield G300 Radiation Detector Samsung Galaxy s6 Smartphone	**Patent #: 7,385,497; Independent Claim 1**	**Patents: 7,385,497; 8,106,752; & RE 43,990; Dependent Claims**
Passport Systems Inc. G300 Radiation Detector alarms when radiation levels are detected; used as a standalone device or as part of a network; is the same size, form factor and weight as a smartphone and easily added to the belt of safety personnel; is paired with a smartphone via Bluetooth, and automatically joins a SmartShield Network. The Network Sensor System (Nets²) SmartShield G300 Radiation Detector is designed specifically for the DHS Securing-the-Cities initiative and Human Portable Tripwire program. Passport Systems, in response to the US Department of Homeland Security (DHS) needs, developed a compact and scalable radiation detector system, the NetS² SmartShield. The smartphone is integral to the advanced features of the SmartShield system. It provides an advanced user interface, a computer to handle advanced identification, geolocation, and data fusion algorithms, and an integrated communications platform to complete reachback as well as data collaboration functions.	A multi sensor detection and lock disabling system for monitoring products and for detecting chemical, biological, and radiological agents and compounds so that terrorist activity can be prevented, comprising:	2. The multi sensor detection and lock disabling system [of claim 1] wherein each detector is capable of being utilized as a stand-alone scanner for detecting the chemical, biological and radiological agents and compounds. (7,385,497)

G300 Detector: Power Source Battery: Integrated, Rechargeable Li-Ion (Micro-USB 2.0 recharging port; up to 700 recharge cycles). Operating Period: 60+ hours (continuous) in surveillance mode	a detector case including a front side, a rear side, a power source and a Central Processing Unit (cpu);	4. The multi sensor detection and lock disabling system [of claim 1] wherein the power source for the detector case can be a battery source. (7,385,497)
Samsung Galaxy s6 Smartphone: Touchscreen color display when synced with detector. The SmartShield System detected and located a sample source efficiently and accurately. The blue coloring depicts the level of natural background radiation collected automatically by the system. The icons on the Passport Systems, Inc. screen represent blue force detectors and the radiation symbol indicates the detection of a check source. The BCU shows 16 fixed detectors represented by the different colored diamond shapes.	a plurality of indicator lights located on the front side with each indicator light corresponding to and indicating the detection of one specific chemical, biological and radiological agent and compound;	119. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have a plurality of indicator lights with each indicator light corresponding to one chemical, biological, radiological, nuclear explosive and contraband agent or compound which are capable of being disposed within the cell phone, the smart phone, or the cell phone detector case and lighting up upon detection of that specific agent or compound for providing visual confirmation of the detection. (RE 43,990)
The Samsung Galaxy s6 smartphone provides communications with the detector, real-time communications to a reachback server, a computational platform, GPS based localization, storage of local data, as well as a user interface which provides network information through hosted server software. The Server software can be run on any standard computer and is typically offered in a Cloud environment	an Internet connection, a GPS connection, and a power connection located on the rear side and which are interconnected with the cpu;	2. The multi sensor detection and lock disabling system [of claim 1] wherein each detector is capable of being utilized as a stand-alone scanner for detecting the chemical, biological and radiological agents and compounds. (7,385,497)

The system as currently delivered performs mirrored computations at every node. In other words, all computing devices including the smartphone and BCU, perform Data Fusion and isotope identification simultaneously and can work independently if need be. If one node drops out all other nodes continue to operate. The architecture of the SmartShield NetS2 system is an open platform that considers communications and computing devices to be independent from each other.	a plurality of interchangeable detectors for detecting the chemical, biological and radiological agents and compounds and capable of being disposed within the detector case;	2. The multi sensor detection and lock disabling system [of claim 1] wherein each detector is capable of being utilized as a stand-alone scanner for detecting the chemical, biological and radiological agents and compounds. (7,385,497)
The Samsung Galaxy s6, sound alarm indicator capabilities as leverage for the NetS² SmartShield G300 Radiation Detector sound alarm indicator. The 2"x2" Detection Device(detector case) includes Light-emitting diode (LED) indicators for sensor status.	each detector including a sound alarm indicator, a readings panel, a light alarm indicator and a sensor;	29. The communication device [of claim 11] wherein the communication device has a display or LCD screen for visualization of the status of the sensors and other data reporting information. (RE 43,990)
The Samsung Galaxy s6, automatic lock disabler capabilities as leverage for the the NetS² SmartShield G300 Radiation Detector automatic lock disabler. After several unsuccessful log-in attempts using a passcode or fingerprint, a Samsung device automatically locks itself up as a security feature. If the user is unable to log in to the phone after doing all the available security layers, there's no other option left for the user to do but to have the phone unlocked.	an automatic/mechanical lock disabler interconnected to the cpu and which is mounted to a lock on a product for receiving transmission from the cpu to lock or disable the lock on the product to prevent access to the product by unauthorized, untrained and unequipped individuals; and	34. The automatic/mechanical lock disabler system [of claim 33] wherein the automatic/mechanical lock disabler is designed to be used with or without biometrics for authentication and identification, thereby allowing access to the product by authorized, trained and equipped individuals and preventing access to the product by unauthorized, untrained, and equipped individuals. (8,106,752)

The Samsung Galaxy s6, sound alarm indicator capabilities as leverage for the the NetS² SmartShield G300 Radiation Detector sound alarm indicator. The Samsung Galaxy s6, automatic lock disabler capabilities as leverage for the the NetS² SmartShield G300 Radiation Detector automatic lock disabler. After several unsuccessful log-in attempts, a Samsung device automatically locks itself up as a security feature.	whereupon detection of specific chemical, biological, or radiological agents or compounds by the detectors causes the lighting of the corresponding indicator light for visual confirmation of the detection and initiates signal transmission from the cpu to the automatic/mechanical lock disabler to lock or disable the lock of the product thereby preventing further contamination about the product and denying access to the product by unauthorized, untrained and unequipped individuals.	37. The automatic/mechanical lock disabler system [of claim 36] wherein the automatic/mechanical lock disabler has a plurality of indicator lights with each indicator light corresponding to one chemical, biological, radiological, nuclear, explosive, and contraband agent or compound to include indicator lights corresponding to detecting humans, motion, temperature, shock and tampering which is capable of being disposed within the detector case and lighting up upon detection of that specific agent or compound for providing visual confirmation of the detection. (8,106,752)